

AMENDMENTS TO THE CLAIMS

1. (Previously Amended) A method for use by a storage switch in a storage network, the method comprising:

(a) receiving a plurality of packets by the switch, wherein the plurality of packets includes data packets and non-data packets;

(b) classifying packets as data packets or non-data packets;

(c) communicating the non-data packets to a first device and the data packets to a second device, and

wherein said steps (a) – (c) are performed without buffering.

2. (Original) The method of claim 1, wherein the data packets form a data request, wherein the data request includes at least some of the group including a read command, a write command, a ready-for-transfer indicator, read data, write data, and a response indicator.

3. (Currently Amended) The method of claim 2, wherein a ready-for-transfer indicator is either an R2T PDU or ~~and~~ FCP\_XFR\_RDY IU.

4. (Original) The method of claim 1, wherein the first device is a CPU.

5. (Original) The method of claim 1, wherein the first device and the second device are both included in the switch.

6. (Original) The method of claim 1, wherein the second device is a packet processing unit.

7. (Original) The method of claim 1, wherein the second device is a fabric.

8. (Original) The method of claim 1, wherein the second device is external to the switch.

9. (Original) The method of claim 1, wherein data packets include those packets that are for an established connection, that are for a recognized protocol, and that are data moving packets.

10. (Original) The method of claim 9, wherein data moving packets include any group of at least one packet that forms any one of a read command, a write command, a ready-for-transfer indicator, write data, read data, or a response indicator.

11. (Original) The method of claim 1, wherein the step of communicating includes utilizing a local header for the packet, wherein the local header includes information indicating if the packet is a data packet or a non-data packet.

12. (Original) The method of claim 1, wherein prior to communicating the data packets to a second device, processing the data packets in accordance with a virtualization function.

13. (Previously Amended) The method of claim 1, wherein steps (a) – (c) are performed by said switch.

14. (Previously Amended) The method of claim 1, wherein steps (a) – (c) are performed at wire speed.

15. (Previously Amended) The method of claim 1, wherein steps (a) – (c) are performed by a storage processor in the switch.

16. (Previously Amended) A method for use by a storage switch in a storage network, the method comprising:

- (a) receiving a plurality of packets by the switch;
  - (b) classifying the packets into non-data packets and data packets;
  - (c) communicating to a CPU only those packets classified as non-data packets; and
- wherein steps (a) - (c) are performed without buffering.

17. (Original) The method of claim 16, wherein the data packets form a data request, wherein the data request includes at least some of the group including a read command, a write command, a ready-for-transfer indicator, read data, write data, and a response indicator.

18. (Original) The method of claim 16, wherein data packets include those packets that are for an established connection, that are for a recognized protocol, and that are data moving packets.

19. (Original) The method of claim 18, wherein data moving packets include any group of at least one packet that forms any one of a read command, a write command, a ready-for-transfer indicator, write data, read data, or a response indicator.

20. (Original) The method of claim 16, further including communicating to a second device those packets classified as data packets.

21. (Original) The method of claim 20, further including, prior to communicating data packets to a second device, processing the data packets in accordance with a virtualization function.

22. (Original) The method of claim 16, wherein steps (a) - (c) are performed at wire speed.

23. (Original) The method of claim 16, wherein steps (a) - (c) are performed by a storage processor in the switch.

24. (Previously Amended) A method for use in a storage network, the method comprising:

(a) receiving a plurality of packets by a linecard of a storage switch in the network;

(b) identifying, by an identifier unit on the linecard, each packet as a data packet or a non-data packet;

(c) communicating non-data packets to a CPU on the linecard;

(d) communicating data packets to a second device for further processing;

and

wherein steps (a) - (d) are performed without buffering.

25. (Original) The method of claim 24, wherein:

the plurality of packets form a plurality of requests; and

identifying includes identifying packets as part of a data request or not part of a data request, wherein the data request includes at least some of the group including a read command, a write command, a ready-for-transfer indicator, read data, write data, and a response indicator.

26. (Original) The method of claim 24, wherein the second device is on the linecard.

27. (Original) The method of claim 24, wherein the second device is external to the linecard.

28. (Original) The method of claim 24, further including, prior to communicating data packets to a second device, processing the data packets in accordance with a virtualization function.

29. (Original) The method of claim 24, wherein the identifier unit is a storage processor unit.

30. (Original) The method of claim 24, wherein steps (a) - (d) are performed at wire speed.

31 – 43 (Withdrawn)

44. (Original) A linecard for use in a storage network, the linecard comprising:

a CPU;

a classifier, the classifier coupled to the CPU, the classifier designed to communicate, without buffering, non-data packets to the CPU and data packets to a second device.

45. (Original) The linecard of claim 44, wherein the second device is on the linecard.

46. (Original) The linecard of claim 44, wherein the second device is external to the linecard.

47. (Original) The linecard of claim 44, wherein data packets include those packets that are for an established connection, that are for a recognized protocol, and that are data moving packets.

48. (Original) The linecard of claim 44, wherein the classifier is designed to insert into a local header an indicator of whether the packet is a data or a non-data packet.

49. (Original) The linecard of claim 44, wherein the classifier is a storage processor unit.

50. (Original) A switch for use in a storage network, the switch comprising:  
a linecard, comprising:

a first device;

classification means for classifying packets into control packets and data packets and communicating control packets to the first device and communicating data packets to a second device, all without buffering.

51. (Original) The switch of claim 50, wherein the second device is on the linecard.

52. (Original) The switch of claim 50, wherein the second device is external to the linecard.

53. (Original) The switch of claim 50, wherein the classification means classifies a packet as a data packet if the packet is for an established connection with a device external to the switch, is for a recognized protocol, and is a data moving packet, and otherwise the classification means classifies the packet as a control packet, wherein the data moving packet includes any one of a read command, a write command, a ready-for-transfer indicator, write data, read data, and a response indicator.

54 – 63 (Withdrawn)